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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/791,996	03/03/2004	Carmen Flosbach	FA1013 US DIV	4286
23906 7590 09/10/2007 E I DU PONT DE NEMOURS AND COMPANY LEGAL PATENT RECORDS CENTER BARLEY MILL PLAZA 25/1128 4417 LANCASTER PIKE WILMINGTON, DE 19805			EXAMINER TSOY, ELENA	
			ART UNIT	PAPER NUMBER
			1762	
			NOTIFICATION DATE	DELIVERY MODE
			09/10/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTO-Legal.PRC@usa.dupont.com

Office Action Summary

Application No.

10/791,996

Applicant(s)

FLOSBACH ET AL.

Examiner

Elena Tsoy

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11, 12, 16 and 19-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11, 12, 16 and 19-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on July 16, 2007 has been entered.

Response to Amendment

Amendment filed on July 16, 2007 has been entered. Claim 18 has been cancelled. Claims 11-12, 16, 19-21 are pending in the application.

It is noted that **canceled claim 7 is missing** in the list of claims.

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 11, 12, 16, 19-21 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The term “(cyclo)aliphatic polyol” in claim 1 is used by the claim to mean “aliphatic” because all polyols listed in the specification as originally filed on page 3, lines 1-13, have *non-cyclic* aliphatic structure. The term is indefinite because the specification does not clearly redefine the term.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 11, 12, 16, 19-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Duecoffre et al (US 6,063,448).

Duecoffre et al disclose a process comprising applying a multi-layer coating (See column 11, lines 43-45) wherein the substrate is an automobile and parts thereof (See column 1, lines 7-12; column 11, lines 46-49) having base lacquer which contains pigments such as effect pigments (claimed special effect-imparting base coat) (See column 11, lines 31-35), and a coating agent applied thereon (See column 11, lines 31-34) as a transparent clear coat (See column 10, lines 57-61) and curing said coating (See column 10, lines 61-63). The coating agent contains resin solids consisting of B) 90 to 10% by weight of one or more hydroxy-functional polyesters (*claimed component a*); A) 10 to 90% by weight of one or more hydroxy-functional (meth)acrylic copolymers and C) 0 to 40% by weight of one or more hydroxy-functional binder vehicles different from A) and B) (A and C being *claimed component b*); D) 5 to 50% by weight of one or more blocked polyisocyanates (See column 7, lines 37-67) and E) 5 to 40% by weight of one or more components based on triazine which crosslink with the hydroxyl groups of components A), B) (D and E being *claimed component c*); wherein the sum of components A) to E) adds up to 100% (See column 14, lines 1-33). The polyester resins B) preferably have number average molecular weights of 200 to 5000, most preferably 1000 to 3000, an OH number of 30 to 450 mg KOH/g, most preferably from 120 to 280 mg KOH/g, and an acid number of 0 to 60 mg KOH/g, most preferably from 2 to 35 mg KOH/g (See column 5, lines 55-60). The coating composition may exist as organic solvent based composition (See examples 1-5) or in a water-thinnable form (See column 10, lines 10-11).

As to amendment to claimed component (a), the polyester resins B) may be prepared using 10 to 70% by weight of a mixture of polycarboxylic acids (**claimed component a2**)

including fumaric acids (See column 6, line 25) and dimeric fatty acids (See column 6, line 26) and 5 to 40% by weight of tri- and/or polyhydric alcohols such as glycerol, trimethylolpropane, pentaerythritol, dipentaerythritol (**claimed component a1**) (See column 6, lines 32-37), *diols*, *monocarboxylic* acids and other components being **optional** (See column 14, lines 40-65).

In other words, claimed component (a1) may comprise 100 wt % of tri- or higher polyhydric alcohols; and component (a2) may comprise 100 wt % of dicarboxylic acids, as required by amendment of claim 1.

As to amendment to claimed component (b), Duecoffre et al further teach that only *portion* of the hydroxy-functional (meth)acrylic copolymer A can be copolymerized in the presence of a *portion* of hydroxy-functional polyester B, and the remainder of the hydroxy-functional polyester B can be added at a later point in time (See column 2, lines 34-36). The remainder of the hydroxy-functional (meth)acrylic copolymer A can be copolymerized **without** polyester B (See column 2, lines 50-51). For example, a binder system may be prepared by **mixing** 32 parts of 62.6 % solution of a component A) (20 parts of solids) prepared by copolymerizing acrylic copolymer with hydroxy-functional polyester, and 17 parts of 70% solution of (**separate**) hydroxy-functional polyester B) (12 parts of solids) (See Example 5).

In other words, the binder consists of the hydroxy-functional polyester B (claimed component **a**), the hydroxy-functional (meth)acrylic copolymer A (one of claimed components **b**) and the hydroxy-functional (meth)acrylic copolymer A copolymerized in the presence of a *portion* of polyester B (“hybrid”).

It is the Examiner’s position that in the absence of definition of hydroxy-functional (meth)acrylic copolymer, the “hybrid” could be interpreted *broadly* as claimed hydroxy-functional (meth)acrylic copolymer, i.e. as one of claimed components **b**, because, as is known, a hydroxy-functional (meth)acrylic *copolymer* broadly means that it is a copolymer having hydroxy-functional (meth)acrylic units, as evidenced by Duecoffre et al: the (meth)acrylic copolymer of Duecoffre et al may have only 20 wt % of a hydroxy-functional (meth)acrylic units and 80 wt % of other monomer units (See column 1, lines 42-52).

As to claimed concentrations of all components, if it could be argued that Duecoffre et al do not show claimed ranges of other components, it is the Examiner’s position that claimed

ranges of all components would be *obvious* over Duecoffre et al because Applicants' disclosure does not provide *any evidence of unexpected results within claimed ranges*.

5. Rejection of claims 11, 12, 16, 19-21 under 35 U.S.C. 103(a) as being unpatentable over Miyabayashi et al (US 4,880,890) in view of Miki et al (US 5397638) has been withdrawn due to amendment.

Response to Argument

Applicants' arguments filed July 16, 2007 have been fully considered but they are not persuasive.

(A) Applicants argue that the Examiner's position was that the polyester (b) of Duecoffre disclosed the Applicants' non-aromatic polyester (a) component of the coating composition used in Applicants process. Applicants have amended the claims in regard to the polyester (a) component to a polyester consisting of "at least one cycloaliphatic polyol having 3 to 6 hydroxyl groups" and "at least one dicarboxylic acid". Applicants' polyester (a) has a high hydroxyl functionality from 4.5 to 10.

The Examiner respectfully disagrees with this argument. The Applicants' non-aromatic polyester (a) component is made from the same polycarboxylic acids as the polyester (b) of Duecoffre, e.g. fumaric acids and dimeric fatty acids (See specification, page 3, line 28) and tri- and/or polyhydric alcohols such as glycerol, trimethylolpropane, pentaerythritol, dipentaerythritol (See specification, page 3, lines 10-11). Therefore, the polyester of Duecoffre would have the same high hydroxyl functionality from 4.5 to 10.

(B) Applicants state that the amendment to the claims for the (b) component of Applicants' composition is directed to components that are clearly outside of the hybrid polymers taught by Duecoffre. As has been previously pointed out, the hybrid polymers used in Duecoffre are different from a simple physical mixture of a (meth)acrylic copolymer and polyester polyol of Applicants' invention. Duecoffre's clear coat contains a hybrid binder comprising polyester polyol as one part, and the (meth)acrylic copolymer as the second part and a polyester which as pointed out above is not the polyester (a) of the composition used in Applicants' process.

The Examiner respectfully disagrees with this argument for the reasons discussed above.

(C) Applicants state that Duecoffre's polyesters are ordinarily known polyesters. The polyesters claimed in the present invention with the specific combination of limitations cannot be found in Duecoffre. Further, Applicants call the Examiner's attention to Example 1, in particular Table 1 (see page 10 of the specification). Six clear coating compositions were prepared. Composition 1-3 used a polyester polyol (b) only which is outside of the scope of amended Claims 12 and 13 and Compositions 4-6 used a combination of polyesters within the scope of the Claims 12 and 13. The physical properties of Compositions 4-6 were in all cases significantly superior to Compositions 1-3. See in particular, mar resistance, tree resin resistance, sulfuric acid etch resistance, and solvent resistance (FAM test). The teaching of Duecoffre certainly do not teach or suggest that such surprising improved physical properties can be obtained with Applicants' invention.

The Examiner respectfully disagrees with this argument. The data shown in Applicants' Table 1 is irrelevant because in contrast to Applicants comparative examples 1-3, a binder of Duecoffre does have both claimed component (a) and claimed component (b). Moreover, a coating of Duecoffre would have the same properties as in claimed invention, since it is made from a coating composition substantially identical to that of claimed invention.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Thursday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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August 31, 2007